

Listing of the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (previously presented) A method of converting interlaced video signals to progressive video signals, said method comprising:

a) receiving an interlaced video signal representing a luma component specifying luma lines and a chroma component specifying chroma lines, wherein said chroma component specifies approximately one-half the number of lines of said luma component;

b) decoding said interlaced video signal and increasing the number of said chroma lines to approximately the same as the number of said luma lines;

c) decreasing the number of said chroma lines of said interlaced video signal back to approximately one-half of the number of said luma lines to avoid a vertical resolution degradation of said chroma lines, whereby said increasing of chroma lines is substantially reversed; and

d) deinterlacing said interlaced video signal, whereby said deinterlacing results in a progressive video signal representing a luma component specifying luma lines and a chroma component specifying chroma lines.

2. (previously presented) The method of claim 1, further comprising a step (e) of making substantially equal the number of said luma lines and the number of said chroma lines of said progressive video signal.

3. (original) The method of claim 2, wherein said step (e) further comprises vertical format converting said progressive video signal for displaying on a display having a vertical resolution different from that of said progressive video signal.

4. (original) The method of claim 2, wherein said step (e) further comprises providing said processed progressive video signal to an imaging system.

5. (original) The method of claim 4, wherein said imaging system comprises a liquid crystal on silicon imager.
6. (original) The method of claim 4, wherein said imaging system further comprises a high definition television receiver.
7. (original) The method of claim 1, wherein said interlaced video signal of said step (a) is a 4:2:0 formatted video signal.
8. (original) The method of claim 1, wherein said step (b) results in an interlaced 4:2:2 formatted video signal.
9. (original) The method of claim 1, wherein said step (c) results in an interlaced 4:2:0 formatted video signal.
10. (previously presented) A method of converting interlaced Moving Picture Experts Group (MPEG) video signals to progressive video signals, said method comprising:
 - receiving an interlaced 4:2:0 formatted video signal having a chroma vertical resolution;
 - decoding said interlaced 4:2:0 formatted video signal and converting said video signal to an interlaced 4:2:2 formatted video signal;
 - re-converting said interlaced 4:2:2 formatted video signal to an interlaced 4:2:0 formatted video signal to retain the chroma vertical resolution of the received interlaced 4:2:0 formatted signal; and
 - deinterlacing said interlaced 4:2:0 formatted video signal resulting in a 4:2:0 formatted progressive video signal.
11. (withdrawn)

12. (withdrawn)

13. (withdrawn)

14. (withdrawn)

15. (withdrawn)

16. (withdrawn)

17. (withdrawn)

18. (withdrawn)

19. (withdrawn)

20. (withdrawn)

21. (withdrawn)

22. (withdrawn)

23. (withdrawn)

24. (previously presented) A system for converting interlaced Moving Picture Experts Group (MPEG) video signals to progressive video signals, said system comprising:

a decoder configured to receive an interlaced video signal representing a luma component specifying luma lines and a chroma component specifying chroma lines, wherein

said chroma component specifies approximately one-half the number of lines of said luma component, and to decode said interlaced video signal and increase the number of said chroma lines to approximately the same as the number of said luma lines; and

a deinterlacer configured to first decrease the number of said chroma lines of said interlaced video signal back to approximately one-half of the number of said luma lines to avoid a vertical resolution degradation of said chroma lines, whereby said increase of chroma lines is substantially reversed, and then to deinterlace said interlaced video signal.

25. (original) The system of claim 24, further comprising:

a processor configured to process said deinterlaced video signal for display on a predetermined imager; and

a liquid crystal on silicon imager for displaying said deinterlaced video signal.

26. (original) The system of claim 24, further comprising:

a high definition television receiver configured to further process said deinterlaced video signal.

27. (withdrawn)

28. (withdrawn)

29. (withdrawn)